

WHAT IS CLAIMED IS:

1. A network element for performing name resolving in a network system which includes a first network using a first network protocol and a second network using a second network protocol, the network element comprising:

a first connection means for providing a direct connection to the first network;

a second connection means for providing a direct connection to the second network;

an address translation means for performing address translation between the first network and the second network; and

a name resolving means for performing name resolving,

wherein the name resolving means and the address translation means are adapted to co-operate in order to translate addresses upon performing name resolving.

2. The network element according to claim 1, wherein the network element is a Domain Name Service server.

3. The network element according to claim 1, wherein the address translation means is adapted to select a particular network address translating element to be used for a connection between a first host in the first network and a second host in the second network, and

wherein the address translation means is adapted to add network address translating element information to the resolved address.

4. The network element according to claim 3, wherein the network address translating element information is an address prefix.

5. The network element according to claim 3, wherein the address translation means is adapted to select a network address translating element based on information regarding the load on the network address translating element.

6. The network element according to claim 1, wherein the first protocol is Internet Protocol version 6 (IPv6), and the second protocol is Internet Protocol version 4 (IPv4).

7. The network element according to claim 1, wherein the name resolving means of the network element is adapted to send a name resolve request to a name resolving element located in the second network.

8. A system comprising a network element according to claim 5 and at least two network address translating elements,
wherein the network address translating elements are adapted to send load information to the network element.

9. The system according to claim 8, wherein the load information is sent using a Simple Network Management Protocol (SNMP).

10. A method for resolving names in a network system which includes a first network using a first network protocol and a second network using a second network protocol, comprising the steps of:

processing a name resolve request to obtain an address; and
performing address translation between the first and the second network,

wherein the name resolve request processing step and the step of performing address translation are performed in a dedicated network element for performing name resolving located in the first network and having direct connections to the first network and to the second network.

11. The method according to claim 10, wherein the network element is a Domain Name Service server.

12. The method according to claim 10, wherein the translating step comprises the steps of:

selecting a particular address network translating element to be used for a connection between a first host (A) in the first network and a second host in the second network; and

adding network address translating element information indicating the selected network translating element to the translated address.

13. The method according to claim 12, wherein the network address translating element information is an address prefix.

14. The method according to claim 12, wherein in the selecting step, different network address translating elements are selected based on information regarding the load on the network address translating elements.

15. The method according to claim 10, wherein the first network protocol is Internet Protocol version 6 (IPv6), and the second network protocol is Internet Protocol version 4 (IPv4).

16. The method according to claim 14, further comprising the step of:

sending load information from at least two network address translating elements to the network element.

17. The method according to claim 16, wherein the load information is sent using Simple Network Management Protocol (SNMP).

18. The method according to claim 10, wherein the name resolve request processing step comprises the steps of:

forwarding a name resolve request from the first network directly to a network name resolving element in the second network; and

receiving an address from the name resolving element in the second network.